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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PICKARD, ALISON K

ART UNIT	PAPER NUMBER
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3676

DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/889,755

Applicant(s)

HJERTHOLM, OLE

Examiner

Alison K. Pickard

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15 and 18-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 15, 18-21 and 26-30 is/are rejected.
- 7) ☒ Claim(s) 22-25 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 15, 18, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Watts (2,766,998).

Watts discloses a sealing arrangement comprising two armature members, a sealing ring, and a clamping means (clamp 80 or threads such as in Figure 3). The sealing ring is made of metal and has a T-shaped cross-section with two axial extending wings (e.g. 80 and 82) and a central, rigid stem 67. The wings each have conical sealing faces 84 and 86 that correspond to conical gliding and support faces 76 and 66 in the members. The conical sealing faces extend under an angle greater than that of the support faces to form a tight seal (see, for example, Fig. 5). Each wing has the same axial extent as the faces. Each face is continuous in its axial extent. Each wing is elastically deformable such that after mounting, the wings extend under a different angle (i.e., that of the faces) (see col.5, line 70 through col. 6, line 47). The wings have a cross-section that increases toward the stem and have a large axial cross-section such that they extend along a major area of the respective support faces. As seen in Figure 5, the stem has a large radial and axial cross-section to offer rigidity. As seen in figures 3 or 5, the entire stem and one wing is received and seated in one member and the other wing is received and seated in the other

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member. As seen in the figures (e.g. 3, 5, 16, or 17), one of the members has a cylindrical support face, for the support face of the stem, and is continuously smooth in its axial direction.

3. Claims 26, 27, 29, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Stobbart (5,466,018).

Stobbart discloses a sealing arrangement comprising first 2 and second 3 members, a sealing ring 4, and clamping means 25. the sealing ring includes first 6 and second 7 wings each having radially outward facing sealing faces and an end face extending radially from the sealing faces (as seen near line 10 in Figure 1). The stem has side faces 8a/b and an end face 9b. Each of the members 2 and 3 has guide surfaces for the side faces, conical support faces 12 and 13, and an axial end surface for the end faces (near line 10). One of the members has a cylindrical and smooth outermost lying support face for the end face 9b of the stem. The side faces 8a/b and the end sealing faces are dimensioned to be spaced from the guide surfaces and end guide faces of the elements (see Fig. 4 for example).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 15 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galle (5,570,911) in view of Watts.

Galle discloses a sealing arrangement comprising two separate armature members 15, 17, a sealing ring 45, and a clamping device 31. The sealing ring is metal and has a T-shaped cross-

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section with two opposite axial extending wings and a stem. The stem is provided with a gliding and support face 57 that is supported against a counter face 41 in only one of the members 11. Face 41 is continuously smooth in its axial direction. The entire stem is seated in the member 11. The armature members have overlapping portions and support each other along mutually opposite conical support surfaces 37, 65 to provide a stop (seen best in Fig. 6). Galle does not disclose that the sealing ring has wings with conical sealing faces that extend under a different angle than when mounted and are elastically deformable. Watts teaches a sealing arrangement comprising two separate armature members, a sealing ring, and a clamping device. The sealing ring has wings with conical sealing faces. Watts teaches making the sealing faces 84, 86 with first angle that is greater than the angle of the conical support faces 76, 66 on the members. Watts teaches that the wings are elastically deformable so that after mounting, the wings extend at a different angle (i.e. that of the support faces). Watts teaches that the sealing faces have the same continuous, rectilinear, axial extension as the wings (see, for example, Fig. 5 at point C to edge of lip near line A). Watts teaches that this configuration ensures a tight fit between the surfaces (e.g. 76 and 84) creating an effective seal (see col. 6, lines 1-34). Also, with this union, pressure from inside the members further enhances the seal. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the shape of the wings of the sealing member of Galle with the shape and angles taught by Watts to improve the sealing effectiveness of the arrangement.

6. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stobbart.

Stobbart does not disclose that the space between the guide surfaces is 1-3mm after mounting. This is considered a design choice. It is not considered inventive to discover the

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workable or optimum ranges by routine experimentation. See *In re Aller*, 105 USPQ 233, 235 (CCPA 1955). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to make the space between the guide surfaces 1-3mm as a matter of choice in design.

Allowable Subject Matter

7. Claims 22-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed 3-18-04 have been fully considered but they are not persuasive.

In response to Applicant's arguments that Watts and Galle do not provide a smooth continuous gliding support, the examiner disagrees. As seen in most of the Figures of Watts, there is a support face that is smooth (i.e. not threaded). This face is continuously smooth in its axial extent. Considering Applicant's Figure 1a and the disclosure, portion "22" has been identified as the support face (which is continuously smooth). The examiner notes that "22" is only a portion of the armature member 11 surface and therefore is not continuous to the end of the member 11 (further supported in that remaining portions of member 11 have been identified by other numbers such as 26a and 26b). Further, portion 26b has a greater diameter than 22, thus 22 technically is not the outermost face. Therefore, the surface of Watts is considered "a radially facing cylindrical outermost lying support face" that "extends continuously in an axial direction" and is "smooth" as Applicant's surface 22 has been set forth. The same applies for Galle.

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Further, both surfaces of Watts and Galle provide gliding support in that the stem could move or rotate against these surfaces. Portion 39 of Galle could also be considered a smooth gliding surface which the stem would glide against during installation.


Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alison K. Pickard whose telephone number is 703-305-0882. The examiner can normally be reached on M-F (10-7:30), with alternate Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 703-306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Alison K. Pickard
Primary Examiner
Art Unit 3676

AP